UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,317	12/18/2001	Koji Yoshida	L9289.01226	1643

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EXAMINER
ARMSTRONG, ANGELA A

ART UNIT	PAPER NUMBER
2654	

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>27 October 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>23-41</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>23-41</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1.   Claims 26 and 29-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 26 recites the limitation "said lag parameter included in the coded data before decoding" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claims 29 and 30 recite the limitation "third detector" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2.   Claims 23-26, 29-30 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerson et al (US Patent No. 5,657,418) in view of Chen (EP 0673018).

Regarding claims 23 and 38, Gerson discloses a decoder that decodes a lag parameter from coded data (Figure 9 col. 5, line 67 to col. 6, line 2; col. 7, line 66 to col. 8, line 23). Gerson discloses determines one of a lag parameter in the first frame and a lag parameter in a second frame that is previous to the first frame as an output lag parameter based on variations in the lag parameter in the first frame (col. 4, line 46 to col. 5, line 51; col. 6, line 19 to col. 7, line

51; col. 8, lines 24-67). Gerson does not teach a determiner that determines coding parameters when an error is detected. Chen discloses a linear prediction coefficient generation during frame erasure or packet loss and specifically provides for a decoder which determines one of a lag parameter in the first frame and a lag parameter in a second frame that is previous to the first frame as an output lag parameter based on variations in the lag parameter in the first frame (page 5, line 10 continuing to page 6, line 21). Chen teaches compensating for frame errors reduces or minimizes degraded system performance experienced in the speech coding system during frame erasure or packet loss.

It would have been obvious to one of ordinary skill at the time of the invention to modify the system of Gerson to implement detecting for errors in transmission and compensating for those errors, as suggested by Chen, for the purpose of maintaining system performance of the coder.

Regarding claim 24, Gerson and Chen teach the speech decoder of claim 23 and additionally, the combination teaches the determiner determines the output lag parameter when mode information of the second frame indicates one of transient mode and unvoiced mode (see Chen page 5, line 10 continuing to page 6, line 21).

Regarding claim 25, Gerson and Chen teach the speech decoder of claim 23, and additionally, the combination teaches a first detector that detects the variations in the lag parameter in the first frame, wherein the determiner determines the lag parameter in the first frame as the output lag parameter when the variations detected by: the first detector are within a predetermined range (see Chen page 5, line 10 continuing to page 6, line 21).

Regarding claim 26, Gerson and Chen teach the speech decoder of claim 25, and additionally, the combination teaches the first detector detects variations in a lag parameter in the first frame based on variations of said lag parameter included in the coded data before decoding (see Chen page 5, line 10 continuing to page 6, line 21).

Regarding claim 29, Gerson and Chen teach the speech decoder of claim 23, and additionally, the combination teaches a detector that detects lag parameter variations between neighboring sub frames, wherein, when the variations are within a first predetermined range with respect to all sub frames in the first frame, the determiner determines lag parameters of said all sub frames as output lag parameters (see Chen page 5, line 10 continuing to page 6, line 21).

Regarding claim 30, Gerson and Chen teaches the speech decoder of claim 23, and additionally, the combination teaches a detector that detects lag parameter variations between neighboring sub frames, wherein the determiner determines a lag parameter in a sub frame in the first frame showing variations within a second predetermined range as the output lag parameter (see Chen page 5, line 10 continuing to page 6, line 21).

3.   Claims 31-37 and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art in view of Chen (EP 0673018) and further in view of Gerson (US Patent No. 5,495,555).

Regarding claims 31-37 and 39-41, applicant's admitted prior art (figure 1, specification pages 1-3) teaches receiving data containing coded transmission parameters, a lag parameter, a fixed excitation parameter, and a gain parameter made up of an adaptive excitation gain and a

fixed excitation gain; decoding the transmitted parameters and controlling the ratio of the

adaptive excitation and fixed excitation gain (as "gain attenuation").

The admitted prior art does not teach a determiner that determines coding parameters

when an error is detected. Chen discloses a linear prediction coefficient generation during frame

erasure or packet loss and specifically provides for a decoder which determines one of a lag

parameter in the first frame and a lag parameter in a second frame that is previous to the first

frame as an output lag parameter based on variations in the lag parameter in the first frame (page

5, line 10 continuing to page 6, line 21). Chen teaches compensating for frame errors reduces or

minimizes degraded system performance experienced in the speech coding system during frame

erasure or packet loss.

It would have been obvious to one of ordinary skill at the time of the invention to modify

the CS-ACELP coding system of the admitted prior art to implement detecting for errors in

transmission and compensating for those errors, as suggested by Chen, for the purpose of

maintaining system performance of the coder.

The admitted prior art does not teach determining or transmitting mode information or

controlling the gain based on mode. Gerson discloses a speech coder/decoder system in which

excitation source gain information is transmitted with mode indicators to determine the

appropriate gain values to be utilized for the excitation sources (Figure 9; col. 5, line 67 to col. 6,

line 2; col. 7, line 66 to col. 8, line 23).

It would have been obvious to one of ordinary skill at the time of the invention to modify

the system of CS-ACELP coding system of the admitted prior art to implement transmission of

mode indicators along with gain and other parameters, as taught by Gerson, for the purpose of

ensuring that appropriate gain values to be utilized for the excitation sources, and thereby

generating quality reconstructed speech signals.

Response to Arguments

4.   Applicant's arguments with respect to claims 23-41 have been considered but are moot in

view of the new ground(s) of rejection.

Conclusion

5.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a).

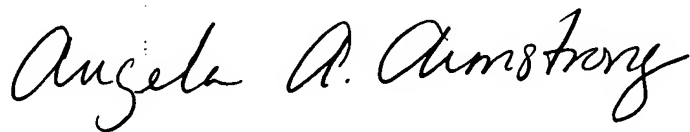Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Angela A. Armstrong whose telephone number is 571-272-7598.

The examiner can normally be reached on Monday-Thursday 11:30-8:00 PM.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

        Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Angela A. Armstrong

Angela A Armstrong
Primary Examiner
Art Unit 2654

AAA
February 21, 2006